

5 273. (AMENDED) The method of claim 271 wherein receiving information comprises:

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receiving time domain symbols via said channel outputs;  
for each of said channel outputs, independently applying said time domain substantially orthogonalizing procedure to said received input time domain symbols; and  
applying said weightings to results of said time domain substantially orthogonalizing procedure to obtain symbols transmitted via each of said subchannels.

9 277. (AMENDED) The method of claim 276 wherein receiving information comprises:

F2  
receiving time domain symbols via said channel outputs;  
for each of said channel outputs, applying said weightings to said time domain symbols to obtain results corresponding to each of said spatial directions;  
applying said time domain substantially orthogonalizing procedure to said results independently for each of said spatial directions to obtain symbols transmitted via each of said subchannels; and  
decoding said symbols transmitted via each of said subchannels according to a coding scheme optimized to take advantage of multiple spatial directions.

Sub 277 283. (AMENDED) The method of claim 266 further comprising:

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receiving via a particular one of said channel outputs, at least  $v$  frequency domain training symbols transmitted via a particular input to said channel in a single burst,  $v$  being an extent in symbol periods of a duration of significant terms of an impulse response of a channel component coupling said particular channel input and said particular channel output;

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Sub 3  
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applying said [time domain] substantially orthogonalizing procedure to said received at least  $\nu$  frequency domain training symbols to obtain a time domain response for said channel component; and

applying an inverse of said substantially orthogonalizing procedure to a zero-padded version of said time domain response to obtain a frequency response for said ~~channel component.~~

Sub 4  
F4

288. (AMENDED) The receiver system of claim 284 further comprising:

a system input that receives [input] time domain input symbols via said channel outputs; and wherein

said at least one processing element applies said substantially orthogonalizing procedure to said time domain input symbols independently for each of said channel outputs; and wherein

said spatial processor applies ones of said weightings corresponding to each of said output bins to results of said substantially orthogonalizing procedure to obtain symbols transmitted via each of said subchannels.

21 292. (AMENDED) The receiver system of claim 290 further comprising:

a system input that receives time domain symbols via said channel outputs; and wherein

said at least one processing element, for each of said channel outputs, independently applies said time domain substantially orthogonalizing procedure to said received [input] time domain symbols; and wherein

said spatial processor applies said weightings to results of said time domain substantially orthogonalizing procedure to obtain symbols transmitted via each of said subchannels.

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